



Kuskokwim Chinook Salmon Escapement



The 2014 preseason forecast for the Kuskokwim River Chinook salmon return is 94,000, with a range of 71,000 to 117,000 fish. Since 2010, the total estimated Chinook salmon returns have been some of the lowest returns on record, with the estimated 2013 Chinook salmon return of 94,680 fish, the lowest run ever documented. Since 2010, the escapement objectives for Chinook salmon have not been met on the Kuskokwim River warranting a cautious and conservative approach to management of the 2014 fisheries season.

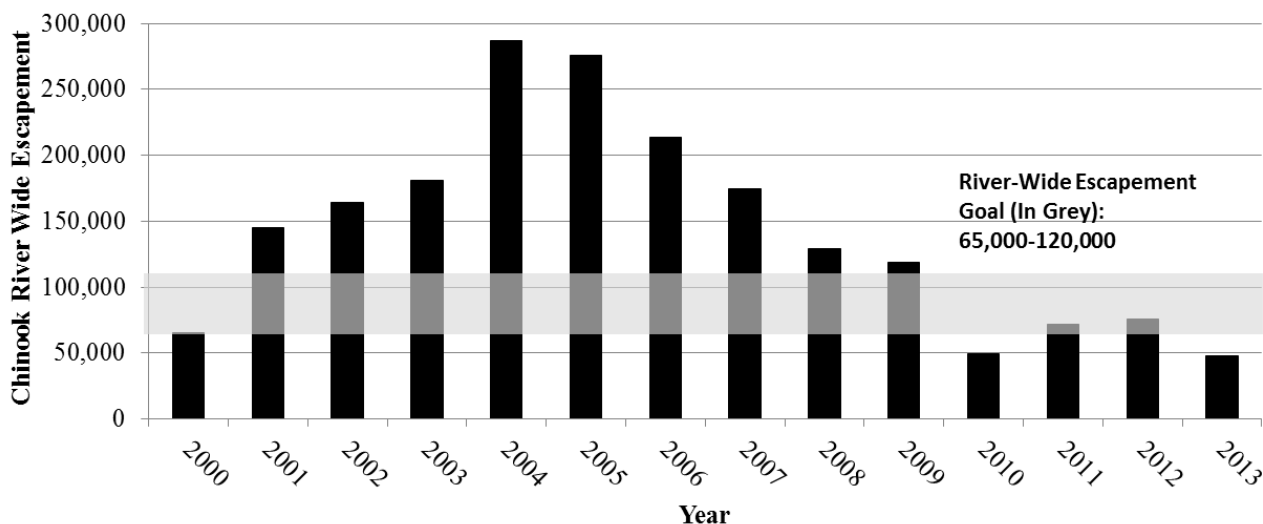


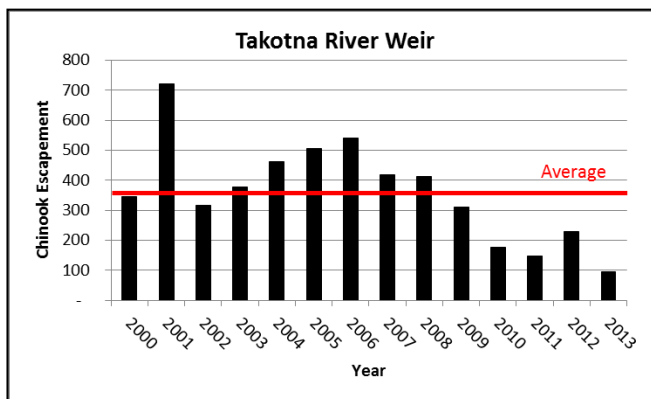
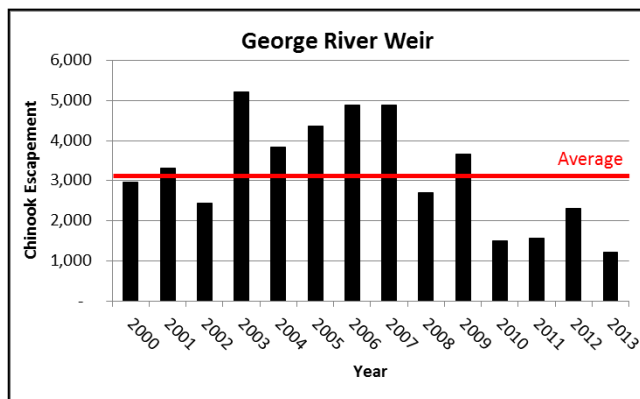
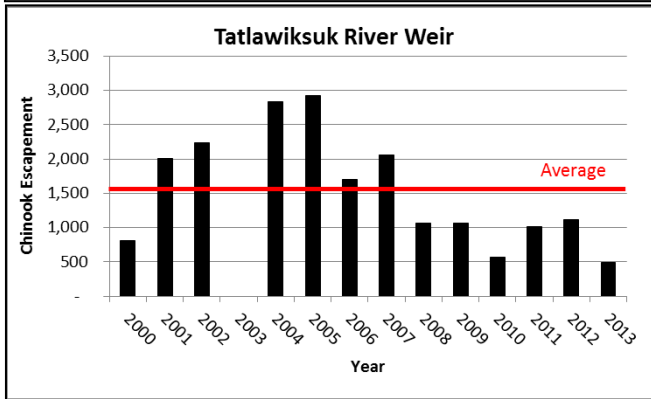
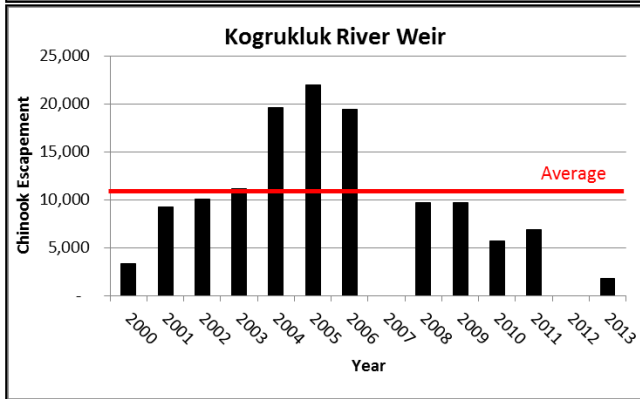
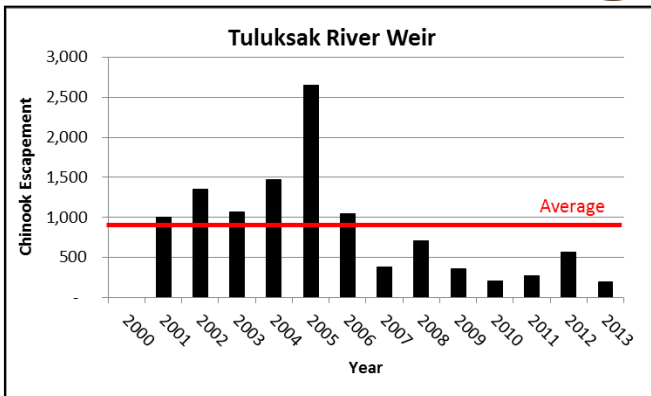
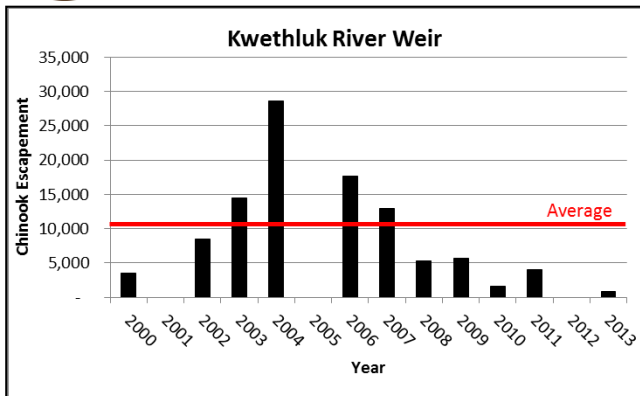
Table 2. Chinook salmon escapement goals and estimated escapement from 2008 through 2013. In 2013, the ADF&G board adopted a river-wide Sustainable Escapement Goal and new tributary escapement goals. The estimated in-river and tributary escapement goals that were not met are bolded and in red. For the rivers that do not have escapement goals the runs which were below average are bolded and in blue. The average escapement for the Tatlawiksuk weir through time is 1,651 and the average escapement for Takotna is 454. The averages were calculated by taking the sum of all the annual escapements through time divided by the total number of years that have recorded escapement information.

2008-2012 Escapement Goals and Escapement Estimates								
		Total River	Kwethluk	Tuluksak	George	Kogruluk	Tatlawiksuk	Takotna
Year	CPUE							
	BTF	No Goal	6,000- 11,000	1,000- 2,100	3,100- 7,900	5,300- 14,000	No Goal	No Goal
2008	623	128,978	5,312	701	2,698	9,730	1,071	413
2009	706	118,478	5,710	404	3,663	9,702	2,849	463
2010	461	49,073	1,693	239	1,500	5,690	567	178
2011	578	72,097	4,079	288	1,571	6,891	1,012	136
2012	419	76,000	NA	560	2,302	NA	1,116	228
2013 Escapement Goals and Estimates								
	CPUE	65,000-						
Year	BTF	120,000	4,100- 7,500	No Goal	1,800- 3,300	4,800- 8,800	No Goal	No Goal
2013	261	47,500	844	193	1,158	1,713	495	94

Information was gathered from: <http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.emihd> and Brazil, C., D. Bue, and T. Elison. 2013. 2011 Kuskokwim area management report. Alaska Department of Fish Game, Fishery Management Report No. 13-23, Anchorage.



Kuskokwim Chinook Salmon Weir Escapement



Beginning in 2008, many tributary escapement goals were not met:

- Kwethluk River (2008, 2009, 2010, 2011, 2013),
- Tuluksak River (2008, 2009, 2010, 2011),
- George River (2008, 2010, 2011, 2012, 2013) and
- Kogrukluk (2013).

The Tatlawiksuk River (2008, 2010, 2011, 2012, 2013), the Takotna River (2008, 2010, 2011, 2012, 2013), and Tuluksak (2012 and 2013) were below their historical average. The average for each River, was calculated by adding the annual total escapements and then dividing by the total number of years the weir was operational and counts were recorded.

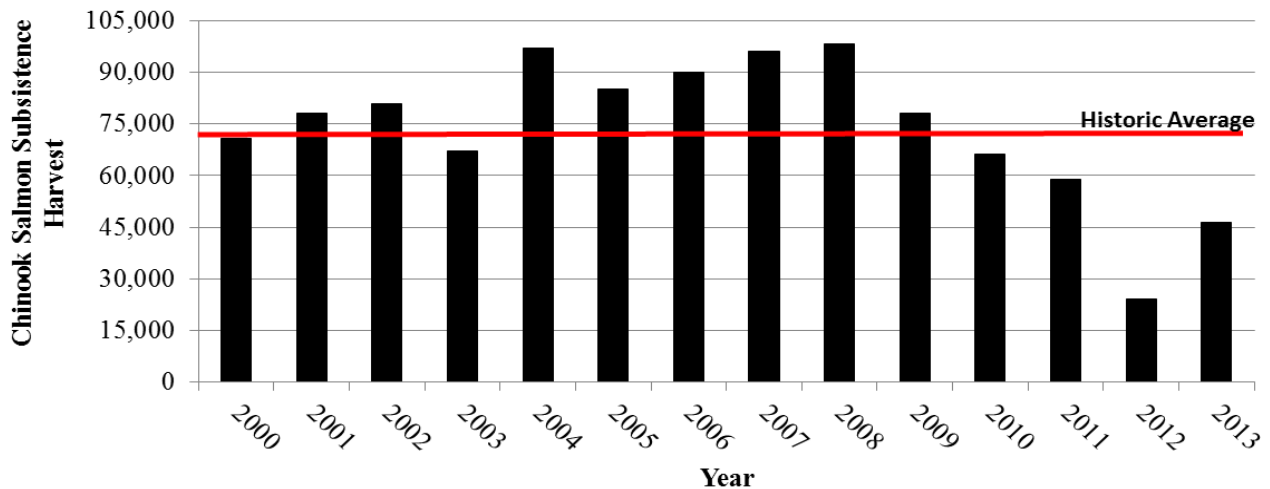


Kuskokwim Chinook Salmon Harvest



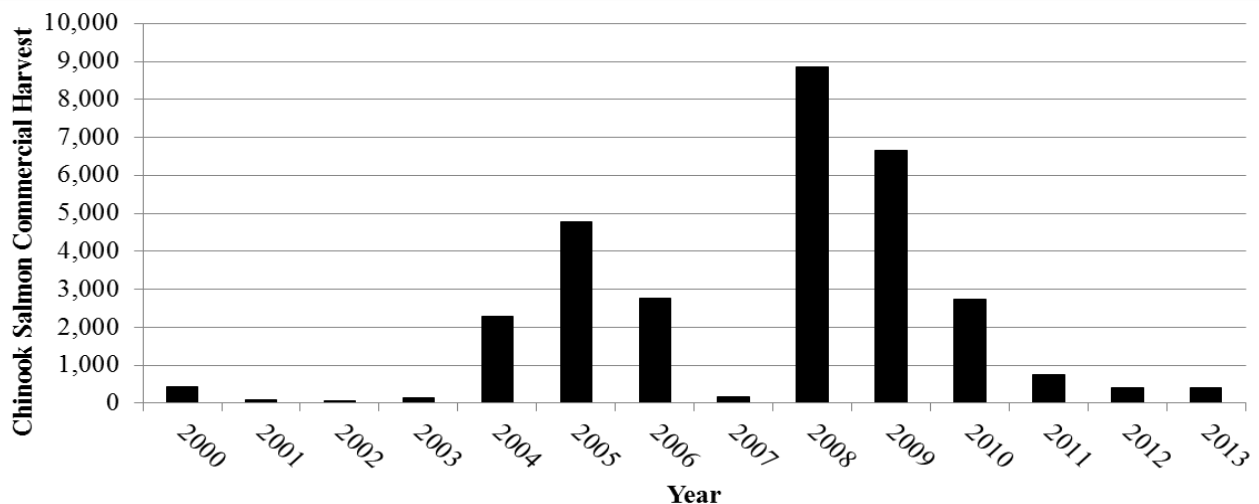
Kuskokwim River Subsistence Harvest

From 1976 through 2013, the subsistence harvest of Chinook salmon has averaged 71,935 annually. From 2009-2013, the subsistence harvest of Chinook salmon has averaged 54,723 annually. Since 2010, Kuskokwim River Chinook salmon subsistence harvest has trended downward, due to low numbers of Chinook salmon returning to spawn resulting in voluntary harvest reductions and fishery closures.



Kuskokwim River Commercial Harvest

From 1976 through 2013, the historic Commercial harvest of Chinook salmon has averaged 21,205 annually. From 2009-2013, the commercial harvest of Chinook salmon has averaged 2,193 annually.



Information was gathered from: <http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.emihd> and Brazil, C., D. Bue, and T. Elison. 2013. 2011 Kuskokwim area management report. Alaska Department of Fish Game, Fishery Management Report No. 13-23, Anchorage.



Bethel Test Fishery



In-Season Run Strength Indicators:

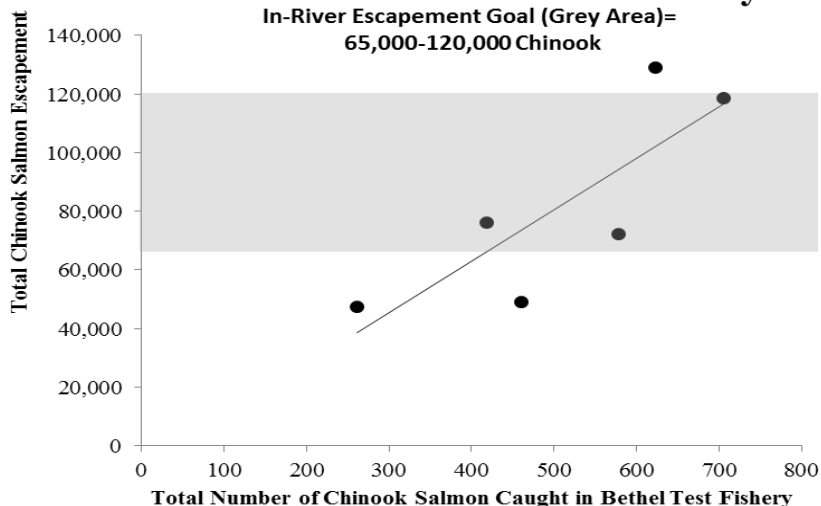
- The catch per unit effort (CPUE) index at the Bethel Test Fishery,
 - In-season subsistence harvest surveys,
 - Commercial harvest rates, and
- Reports from weir, soar, and aerial survey programs once fish begin to reach clear water tributaries.

Factors that affect Chinook Capture at the Bethel Test Fishery:

- Water level and clarity,
- Height of the flooding tides, weather conditions,
- Changes in river channel morphology and hydrology,
- Fish size relative to gillnet mesh size, net saturation effects, and
- Test fish crew technique.

Catch-Per-Unit-Effort for Chinook Salmon at the Bethel Test Fishery

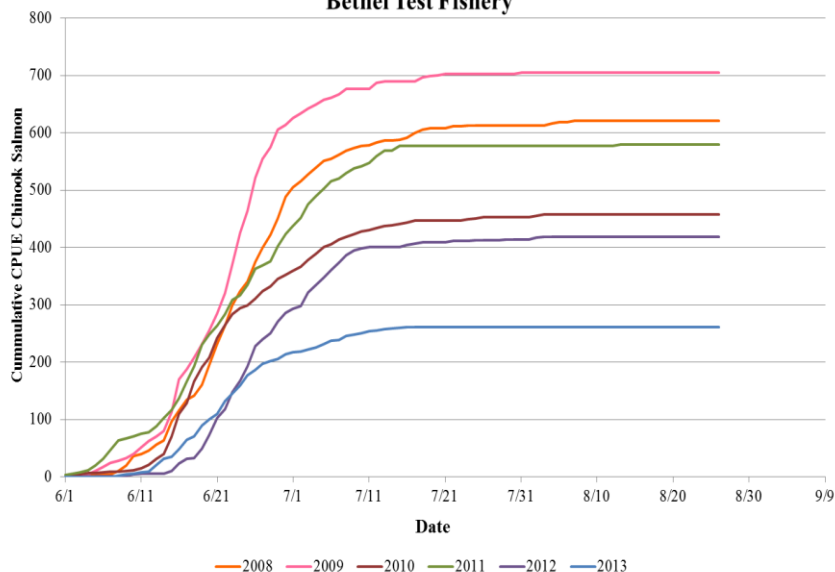
In-River Escapement Goal (Grey Area)=
65,000-120,000 Chinook



Run Strength Indicators:

- Provide a general description of the run,
- Does not provide accurate estimates of escapement,
- Requires consideration of multiple factors and knowledge of sampling methods and data analysis, and
- When it is used with other inseason management tools it can provide insight into salmon run strength and migratory timing.

Daily Cumulative CPUE of Chinook Salmon at the Bethel Test Fishery



Information was gathered from: <http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.btf> and Bue, D. G., and C. Brazil. 2012. Characterization of the 2010 salmon run in the Kuskokwim River based on test fishing at Bethel. Alaska Department of Fish Game, Fishery Data Series No. 12-53, Anchorage.